

1 13. (Amended) A fretting resisting roller bearing
2 according to Claim 12, wherein said organic metallic salt is
3 selected from the group consisting of molybdenum
4 thiocarbamate, molybdenum dithio phosphate, zinc
5 thiocarbamate, and zinc dithiophosphate.

1 15. (Amended) A fretting resisting roller bearing
2 according to Claim 1, wherein said corrosion preventing
3 agent is molybdenum dithiocarbamate.

REMARKS

This Amendment addresses the issues outstanding from the Office Action dated April 10, 2001, in the parent application.

The claims have been amended to address the asserted indefiniteness.

As to the merits, Claim 1 has been amended to recite an especially preferred implementation of Applicants' invention. Specifically, Claim 1 has been amended to recite that the claimed bearing is a fretting resisting spindle support roller bearing of a low-torque spindle drive, and further, to recite that the dynamic viscosity of the lubricating oil at 40°C is 40 to 150 mm²/s.

Fretting corrosion is particularly problematical for grease-filled spindle support bearings, because the amount of grease enclosed is typically small. The present inventors have found that the subject matter of the invention now particularly set forth in Claim 1 (including the revised dynamic viscosity range) is highly effective for preventing fretting corrosion in such spindle support bearings.

Applicants respectfully submit that, at least as presently amended, Claim 1 distinguishes patentably from Shiraishi et al., which was cited as the basis for rejection of Claim 1 under 35 U.S.C. § 103(a). More specifically, Applicants submit that Shiraishi et al. neither addresses the aforementioned problem regarding low-torque spindle drives, nor suggests the solution thereto now set forth in Claim 1. Nor, Applicants submit, do the other cited references.

Accordingly, favorable reconsideration and allowance of this application in view of the present amendments are respectfully solicited.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time

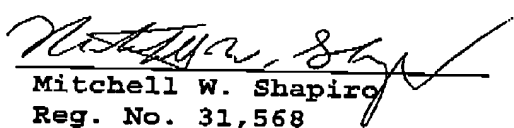
is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

Respectfully submitted,

MWS:sjk

Miles & Stockbridge P.C.
1751 Pinnacle Drive
Suite 500
McLean, VA 22102-3833
Phone: (703) 610-8652

By:


Mitchell W. Shapiro
Reg. No. 31,568

July 27, 2001

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

By:


Mitchell W. Shapiro

July 27, 2001

MARKED-UP VERSION OF THE CLAIMS

1 1. (Twice Amended) A fretting resisting spindle
2 support roller bearing of a low-torque spindle drive,
3 comprising a plurality of rolling elements held between
4 inner and outer races with a cage interposed therebetween,
5 wherein an oil film of lubricating oil of which a dynamic
6 viscosity at 40°C is [20] 40 to 150 mm²/s and which contains
7 an extreme pressure agent and a corrosion preventing agent
8 is formed on raceway surfaces of the inner and outer races,
9 said cage and said rolling elements, and wherein a grease is
10 enclosed.

1 6. (Amended) A fretting resisting roller bearing
2 according to claim 5, wherein said organic metallic salt is
3 selected from the group consisting of molybdenum
4 thiocarbamate, molybdenum dithio phosphate, zinc
5 [diocarbamate] thiocarbamate, and zinc dithiophosphate.

1 8. (Amended) A fretting resisting roller bearing
2 according to claim 4, wherein said corrosion preventing
3 agent is molybdenum [dithiocarbamate] dithiocarbamate.

1 11. (Amended) A fretting resisting roller bearing
2 according to claim 10, wherein said organic metallic salt is
3 selected from the group consisting of molybdenum
4 thiocarbamate, molybdenum dithio phosphate, zinc
5 [diocarbamate] thiocarbamate, and zinc dithiophosphate.

1 13. (Amended) A fretting resisting roller bearing
2 according to Claim 12, wherein said organic metallic salt is
3 selected from the group consisting of molybdenum
4 thiocarbamate, molybdenum dithio phosphate, zinc
5 [diocarbamate] thiocarbamate, and zinc dithiophosphate.

1 15. (Amended) A fretting resisting roller bearing
2 according to Claim 1, wherein said corrosion preventing
3 agent is molybdenum [dithiocarbamate] dithiocarbamate.